

Listing of the Claims:

Following is a complete listing of the claims in the application, as previously amended:

Claims 1-20 (Canceled)

21. (Previously Presented) A plurality of targeting conjugates for use in preparing a targeted, therapeutic liposome composition, each conjugate comprising (i) a lipid having a polar head group and a hydrophobic tail, (ii) a hydrophilic polymer having a proximal end and a distal end, said polymer attached at its proximal end to the head group of the lipid, and (iii) a targeting ligand having binding affinity for a receptor expressed on a cell attached to the distal end of the polymer.

22. (Original) The conjugates of claim 21, wherein the lipid is selected from the group consisting of distearoyl phosphatidylethanolamine, distearoyl-phosphatidylcholine, monogalactosyl diacylglycerols and digalactosyl diacylglycerols.

23. (Original) The conjugates of claim 21, wherein the hydrophilic polymer is selected from the group consisting of polyvinylpyrrolidone, polyvinylmethylether, polymethyloxazoline, polyethyloxazoline, polyhydroxypropyloxazoline, polyhydroxypropylmethacrylamide, polymethacrylamide, polydimethylacrylamide, polyhydroxypropylmethacrylate, polyhydroxyethylacrylate, hydroxymethylcellulose, hydroxyethylcellulose, polyethyleneglycol, polyaspartamide and hydrophilic peptide sequences.

24. (Original) The conjugates of claim 21, wherein the hydrophilic polymer is polyethylene glycol.

25. (Original) The conjugates of claim 24, wherein the polyethylene glycol has a molecular weight between 500-5,000 daltons.

26. (Original) The conjugates of claim 21, wherein the targeting ligand is an antibody or an antibody fragment.

27. (Original) The conjugates of claim 26, wherein the antibody or antibody fragment is a humanized murine antibody.

28. (Original) The conjugates of claim 21, wherein the targeting ligand specifically binds to an extracellular domain of a growth factor receptor.

29. (Original) The conjugates of claim 28, wherein the receptors are selected from the group consisting of c-erbB-2 protein product of the HER2/neu oncogene, epidermal growth factor receptor, basic fibroblast growth factor receptor and vascular endothelial growth factor receptor.

30. (Original) The conjugates of claim 21, wherein the targeting ligand binds a receptor selected from the group consisting of E-selectin receptor, L-selectin receptor, P-selectin receptor, folate receptor, CD4 receptor, CD19 receptor, $\alpha\beta$ integrin receptors and chemokine receptors.

31. (Original) The conjugates of claim 21, wherein the targeting ligand binds a receptor on a malignant B-cell or T-cell, said receptor selected from the group consisting of CD19, CD20, CD22, CD4, CD7 and CD8.

32. (Original) The conjugates of claim 21, wherein the targeting ligand is selected from the group consisting of folic acid, pyridoxal phosphate, vitamin B12, sialyl Lewis^x, transferrin, epidermal growth factor, basic fibroblast growth factor, vascular endothelial growth factor, VCAM-1, ICAM-1, PECAM-1, RGD peptides and NGR peptides.

Claims 33-56 (Canceled)

57. (Original) The conjugates of claim 21, wherein the targeting ligand is selected from the group consisting of water soluble vitamins, apolipoproteins, insulin, galactose, Mac-1, PECAM-1/CD31, fibronectin, osteopontin, RGD sequences of matrix proteins, HIV GP 120/41 domain peptomers, GP120 C4 domain peptomers, T cell tropic isolates, SDF-1 chemokines, Macrophage tropic isolates, anti-cell surface receptor antibodies or fragments thereof, pyridoxyl ligands, biotin, RGD peptide mimetics, YIGSRG protein, $\alpha_v\beta_5$, IL-8, anti-E-selectin Fab

58. (Original) The conjugates of claim 57, wherein the anti-cell surface receptor antibodies or fragments thereof is selected from the group consisting of anti-HER2/neu, anti-selectin and anti-VEGF pyridoxyl.

59. (Original) The conjugates of claim 57, wherein the pyridoxyl ligand is selected from the group consisting of pyridoxal, pyridoxine, pyridoxamine, pyridoxal 5'-phosphate and N-(4'-pyridoxyl)amines.

60. (Previously Presented) A targeting conjugate, comprising (i) a lipid having a polar head group and a hydrophobic tail, (ii) a hydrophilic polymer having a proximal end and a distal end, said polymer attached at its proximal end to the head group of the lipid, and (iii) a targeting ligand having binding affinity for a receptor expressed on a cell attached to the distal end of the polymer.

61. (Original) The conjugate of claim 60, wherein the targeting ligand is an antibody or an antibody fragment.

62. (Original) The conjugate of claim 61, wherein the antibody or antibody fragment is a humanized murine antibody.

63. (Original) The conjugate of claim 60, wherein the targeting ligand specifically binds to an extracellular domain of a growth factor receptor.

64. (Original) The conjugate of claim 63, wherein the receptors are selected from the group consisting of c-erbB-2 protein product of the HER2/neu oncogene, epidermal growth factor receptor, basic fibroblast growth factor receptor and vascular endothelial growth factor receptor.

65. (Original) The conjugate of claim 60, wherein the targeting ligand binds a receptor selected from the group consisting of E-selectin receptor, L-selectin receptor, P-selectin receptor, folate receptor, CD4 receptor, CD19 receptor, $\alpha\beta$ integrin receptors and chemokine receptors.

66. (Original) The conjugate of claim 60, wherein the targeting ligand binds a receptor on a malignant B-cell or T-cell, said receptor selected from the group consisting of CD19, CD20, CD22, CD4, CD7 and CD8.

67. (Original) The conjugate of claim 60, wherein the targeting ligand is selected from the group consisting of folic acid, pyridoxal phosphate, vitamin B12, sialyl Lewis^x, transferrin, epidermal growth factor, basic fibroblast growth factor, vascular endothelial growth factor, VCAM-1, ICAM-1, PECAM-1, RGD peptides and NGR peptides.

68. (Currently Amended) The conjugate of claim 60, wherein the targeting ligand is selected from the group consisting of water soluble vitamins, apolipoproteins, insulin, galactose, Mac-1, PECAM-1/CD31, fibronectin, osteopontin, RGD sequences of matrix proteins, HIV GP 120/41 domain peptomers, GP120 C4 domain peptomers, T cell tropic isolates, SDF-1 chemokines, Macrophage tropic isolates, anti-cell surface receptor antibodies or fragments thereof, pyridoxyl ligands, biotin, RGD peptide mimetics, YIGSRG protein, $\alpha_v\beta_5$, IL-8, and anti-E-selectin Fab.

69. (Original) The conjugate of claim 68, wherein the anti-cell surface receptor antibodies or fragments thereof is selected from the group consisting of anti-HER2/neu, anti-selectin and anti-VEGF pyridoxyl.

70. (Original) The conjugate of claim 68, wherein the pyridoxyl ligand is selected from the group consisting of pyridoxal, pyridoxine, pyridoxamine, pyridoxal 5'-phosphate and N-(4'-pyridoxyl)amines.

71. (Previously Presented) A liposome composition comprising targeting conjugate comprised of (i) a lipid having a polar head group and a hydrophobic tail, (ii) a hydrophilic polymer having a proximal end and a distal end, said polymer attached at its proximal end to the head group of the lipid, and (iii) a targeting ligand having binding affinity for a receptor expressed on a cell attached to the distal end of the polymer.

72. (Original) The composition of claim 71, wherein the targeting ligand is an antibody or an antibody fragment.

73. (Original) The composition of claim 72, wherein the antibody or antibody fragment is a humanized murine antibody.

74. (Original) The composition of claim 71, wherein the targeting ligand specifically binds to an extracellular domain of a growth factor receptor.

75. (Original) The composition of claim 74, wherein the receptors are selected from the group consisting of c-erbB-2 protein product of the HER2/neu oncogene, epidermal growth factor receptor, basic fibroblast growth factor receptor and vascular endothelial growth factor receptor.

76. (Original) The composition of claim 71, wherein the targeting ligand binds a receptor selected from the group consisting of E-selectin receptor, L-selectin receptor, P-selectin receptor, folate receptor, CD4 receptor, CD19 receptor, $\alpha\beta$ integrin receptors and chemokine receptors.

77. (Original) The composition of claim 71, wherein the targeting ligand binds a receptor on a malignant B-cell or T-cell, said receptor selected from the group consisting of CD19, CD20, CD22, CD4, CD7 and CD8.

78. (Original) The composition of claim 71, wherein the targeting ligand is selected from the group consisting of folic acid, pyridoxal phosphate, vitamin B12, sialyl Lewis^x, transferrin, epidermal growth factor, basic fibroblast growth factor, vascular endothelial growth factor, VCAM-1, ICAM-1, PECAM-1, RGD peptides and NGR peptides.

79. (Original) The composition of claim 71, wherein the targeting ligand is selected from the group consisting of water soluble vitamins, apolipoproteins, insulin, galactose, Mac-1, PECAM-1/CD31, fibronectin, osteopontin, RGD sequences of matrix proteins, HIV GP 120/41 domain peptomers, GP120 C4 domain peptomers, T cell tropic isolates, SDF-1 chemokines, Macrophage tropic isolates, anti-cell surface receptor antibodies or fragments thereof, pyridoxyl ligands, biotin, RGD peptide mimetics, YIGSRG protein, $\alpha_v B_5$, IL-8, anti-E-selectin Fab

80. (Original) The composition of claim 79, wherein the anti-cell surface receptor antibodies or fragments thereof is selected from the group consisting of anti-HER2/neu, anti-selectin and anti-VEGF pyridoxyl.

81. (Original) The composition of claim 79, wherein the pyridoxyl ligand is selected from the group consisting of pyridoxal, pyridoxine, pyridoxamine, pyridoxal 5'-phosphate and N-(4'-pyridoxyl)amines.